

Amendments to the Specification:

On Page 20, please amend the paragraph beginning with line 9, to read as follows:

-- If the differential frequency generation (DFG) effect of the secondary nonlinear optical material is used in the cross-correlation signal generator 605, the cross-correlation signal becomes light of a frequency which is the difference between the multiplexed signal and gate light pulse, and the optical filter 606 separates the light wave of a frequency $f = |f_s - f_g|$. Such secondary nonlinear optical materials include LiNbO_3 (Lithium Niobate), AANP (2-Adamantylamino-5-Nitropyridine) and KTP (Potassium Titanium Oxide Phosphate KTiOPO_4). --